

**FIELD VERSION**

# **SURVIVING MALARIA** **Decision Guide**

*A Programming Tool for Promoting Appropriate Case Management  
of Malaria in Infants and Young Children*

The Child Survival Collaborations and Resource Group  
Malaria Working Group  
October 2003





The Child Survival Collaborations and Resources Group (The CORE Group) is a membership association of more than 35 U.S. Private Voluntary Organizations that work together to promote and improve primary health care programs for women and children and the communities in which they live. The CORE Group's mission is to strengthen local capacity on a global scale to measurably improve the health and well being of children and women in developing countries through collaborative NGO action and learning. Collectively, its member organizations work in over 140 countries, supporting health and development programs. For more information, please contact:

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This publication was made possible by support through the Office of Private and Voluntary Cooperation of the United States Agency for International Development (USAID) under cooperative agreement FAO-A-00-98-00030. This publication does not necessarily represent the views or opinion of USAID. It may be reproduced if credit is properly given.



CSTS+ is funded by the United States Agency for International Development, Bureau for Global Health's Office of Health, Infectious Diseases and Nutrition, and is managed by ORC Macro under contract # GHS-M-00-03-00001-00. The opinions expressed herein are those of the author(s) and do not necessarily reflect the views of USAID or its Child Survival and Health Grants Program staff. For further information on the Child Survival Technical Support Plus Project, please contact:

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Designed by **Cecilia Snyder**

# SURVIVING MALARIA

## Decision Guide

***A Programming Tool for Promoting Appropriate Case Management of Malaria in Infants and Young Children***

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## ACKNOWLEDGEMENTS

The CORE Group would like to thank the following individuals for their invaluable help in developing the Surviving Malaria Decision Guide:

**Michel Pacqué**, Senior Child Survival Specialist for the Child Survival Technical Support Plus Project, wrote the initial draft of the Decision Guide tool and has been deeply involved in continual development of the tool. His contributions and work on this tool as well as several other malaria and child survival related technical references and tools have greatly benefited the CORE member community.

**Anne Henderson Siegle**, consultant to the CORE Malaria Working Group for her vast technical insight and willingness to carry this project through its many stages. Her organization and incorporation of technical content provided by Malaria Working Group Members and others into the tool was critical to its development.

**Larry Casazza**, consultant to the CORE Group, for his continual visioning and for planting the seeds for this tool. His continual encouragement and ability to bring together diverse partners in collaborative spirit have been invaluable to CORE's work.

**Carolyn Daher**, Malaria Coordinator for the Core Group, whose continued enthusiasm, coordination and feedback made the development of the tool possible.

**Lyndon Brown**, Child Survival Technical Advisor for World Vision, Inc. and Malaria Working Group Coordinator, for his continued leadership and coordination of the Malaria Working Group activities including the development of this tool.

**CORE Malaria Working Group Members** who provided significant input, guidance and feedback in the development of this tool including:

**Paula Brentlinger**, Health Alliance International

**Luis Benavente**, Medical Care Development International

**Jane Briggs**, Management Sciences for Health

**Jean Capps**, Public Health Consultant

**Robb Davis**, Freedom from Hunger

**Becky DeGraff**, Adventist Development and Relief Organization

**Uzo Gilpin**, Population Services International

**George Greer**, BASICS II

**Karen Leban**, CORE Group/ Executive Director

**Matt Lynch**, USAID/Global Health

**Eric Starbuck**, Save the Children

**Youssef Tawfik**, Johns Hopkins University Center for Communication

**Circe Trevant**, Christian Children's Fund

**Lynette Walker**, CORE Group/ IMCI Coordinator

**Bill Yaggy**, African Medical and Research Foundation

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## KEY TERMS

Following are definitions of key terms that are used in the decision Guide.

**Caregiver:** An individual who has primary responsibility for the care of a child. Often, it is the child's mother, but could also be his or her father, grandparent, older sibling, or other member of the community. (Source: USAID/TRMs)

**Household Decision Maker:** (Caregivers themselves are often do not have the final word on what type of treatment will be given or what assistance will be sought for the sick child.) Decision makers are individuals in the household and or community who determine what care infants and children will receive when they are sick. Decisions may include what treatments to give or withhold and if, where and when care for the sick child outside the home will be sought. Decision makers are context/ cultural specific. In some households, it may be a mother-in-law, father, grandmother, maternal uncle, etc.

**Home Care:** "All treatments that the family decides to give to the sick child" (source: C. Baume)

**Case management:** The recognition or diagnosis and treatment of malaria with an effective antimalarial (source: WHO)

**Informal Providers:** Sources of care or health information and products based in the community and may include: CHWs, local shops, traditional healers, drug vendors, malaria agents, etc.

**Facilitated Referral:** When an infant or child requires additional assistance beyond what the current level of care can provide, a "facilitated referral" would include 4 or more of the following actions:

- Active counseling on need for referral
  - Inquiry about barriers
  - Linking to sources of funds for care seeking
  - Linking to transport
  - CHW accompanies family to facility
  - CHW gives first dose before referral
  - CHW fills out referral slip
  - Referral recorded in a register
  - Counter-referral from facility to CHW
  - Monitoring of referral and counter-referral through HIS
- (source: P. Winch; K. Gilroy)

**Effective antimalarial:** Chloroquine resistance is widespread in Africa, particularly southern and eastern Africa, with SP (Sulfadoxine-pyrimethamine) taking its place as the first line of treatment. However, resistance to SP is also on the rise with artemisinin-based combination therapies being introduced. In order to ensure treatment with an effective antimalarial, information should be sought from and support provided to the MOH regarding policy and practice on first line treatment for malaria, sites where drugs can be made available, and ongoing studies to test/monitor drug resistance.

**Danger Signs:** Signs that indicate a severe illness is present and immediate medical assistance is needed. Danger signs in infants and young children include:

- High or persistent fever
- Stupor, lethargy, loss of consciousness
- Vomiting all intake
- Rapid/difficult breathing
- Twitching or convulsions



## INTRODUCTION

### The Burden of Malaria

Malaria claims an estimated 2.7 million lives each year, with children less than two years of age and pregnant women being among the most vulnerable. It is estimated that 300-500 million acute infections of malaria occur each year, with 90% of these happening in Africa costing the continent more than US\$12 billion annually.<sup>1</sup> In Africa, 1 out of 5 deaths for children under five is due to malaria, with many of these children dying within 48 hours after the first symptoms appear. The health and development of millions of children is greatly compromised by the consequences of frequent malaria episodes including anemia, low birth weight, epilepsy and neurological problems.<sup>2</sup> Given the presence of effective tools and treatments available for malaria prevention and management, NGOs are challenged to join with local, national and international partners to increase capacity and improve the access of households and communities living in malaria endemic areas to effective prevention and treatment particularly for those most vulnerable.

#### *CORE Group Members' activities to reduce the burden of malaria*

As part of the CORE Group members' commitment to child survival, malaria prevention and early case management among vulnerable populations are priority activities. Members' malaria related program activities include:

- Improved malaria disease recognition and standard case management (including reduction of anemia).
- Reduction in malaria transmission through community-wide (especially children and pregnant women) use of insecticide-treated mosquito nets, including regular re-treatment of nets.
- Antenatal prevention and treatment of malaria in pregnancy.
- Other simple and effective environmental approaches to malaria control.

The CORE Group has a Malaria Coordinator and a "Malaria Working Group" providing mechanisms to assist member organizations and others to enhance and expand their malaria program development. Activities include dissemination and development of tools for improving the effectiveness of malaria interventions and creating and participating in networks that seek to strengthen coordination and increase coverage of effective malaria interventions. To foster and facilitate information sharing, CORE created the Child Health and Development Database. The database aims to collect the best evidence-based documents, tools, and other materials developed by the NGO community for work in child health and development. The goal is to enable users to access materials that they can use and/or adapt, and to facilitate linkages with others who are doing similar work in different locations. Please help us by adding your documents to the database. Malaria-specific tools developed to date with CORE Group members input include (tools available through [www.coregroup.org](http://www.coregroup.org)):

- CORE Child Health and Development Database (go to: <http://www.coregroup.org/imci/> )
- Malaria Programming, A Minimum Package (contact: [Michel.C.Pacque@orcmacro.com](mailto:Michel.C.Pacque@orcmacro.com))
- USAID Child Survival Malaria Technical Reference Materials, updated 2003 (go to: [www.childsurvival.com/documents/trms/update\\_trms.cfm](http://www.childsurvival.com/documents/trms/update_trms.cfm))
- Crucial Child Survival Interventions: A Checklist, updated 2003 (go to: <http://www.childsurvival.com/tools/SOTAchecklist.doc>)
- KPC 2000+ Knowledge, Practices and Coverage Survey Malaria Module (go to: <http://www.childsurvival.com/kpc2000/kpc2000.cfm>)
- Surviving Malaria Decision Pathway/Draft form: October, 2003 (contact: [cdaheer@worldvision.org](mailto:cdaheer@worldvision.org))

<sup>1</sup> WHO, Expert Committee on Malaria, 20th Report

<sup>2</sup> WHO, Roll Back Malaria Briefing Document 2002

### **Surviving Malaria Decision Guide Tool**

When it comes to the treatment of malaria, time is of essence, particularly in infants and young children. Malaria management depends not only on having “accessible” effective antimalarials and “accessible” health providers with the skills and supplies to effectively diagnose and treat malaria, but as importantly on the ability of the caregiver to recognize the symptoms of malaria, provide adequate home care, and /or promptly seek treatment and then provide the treatment and followup care required. The *Surviving Malaria Decision Guide* is a tool that seeks to assist NGOs and other organizations implementing malaria activities to decide on what malaria interventions are most relevant for improving the early detection and appropriate treatment of malaria among the most vulnerable groups in their specific program context.

### **Using the Surviving Malaria Decision Guide**

The Decision Guide presents 10 key behaviors that are critical to ensuring the appropriate case management of malaria in infants and young children beginning from the time a child becomes sick with malaria to the return of the child’s health. Program guidance is provided for each key behavior including:

- Explanation of why the behavior is important
- Assessment questions to be considered in relation to each behavior
- Assessment tools available to help seek answers to questions being asked
- Decisions needed / program considerations after the assessment information is collected

Information gathered and analyzed will help program teams and their stakeholders identify areas where malaria case management interventions can have the greatest impact. It may be that interventions are needed across several key behaviors in order to have an impact. Assessment information collected and program decisions made should be evaluated in the context of:

- The presence of other partners working in the program area, focusing on areas of potential collaboration and avoiding duplication of efforts based on the organization’s and partner’s comparative advantages, existing relationships and strengths.
- Existing community and health-related services and structures in place.
- Resources available for program implementation as well as through other partner organizations.

While the *Surviving Malaria Decision Guide* focuses specifically on the detection and treatment of malaria in infants and young children, the CORE Malaria Working Group has plans to develop additional tools to assist NGOs and their partners to improve the selection, targeting and impact of their malaria related interventions including:

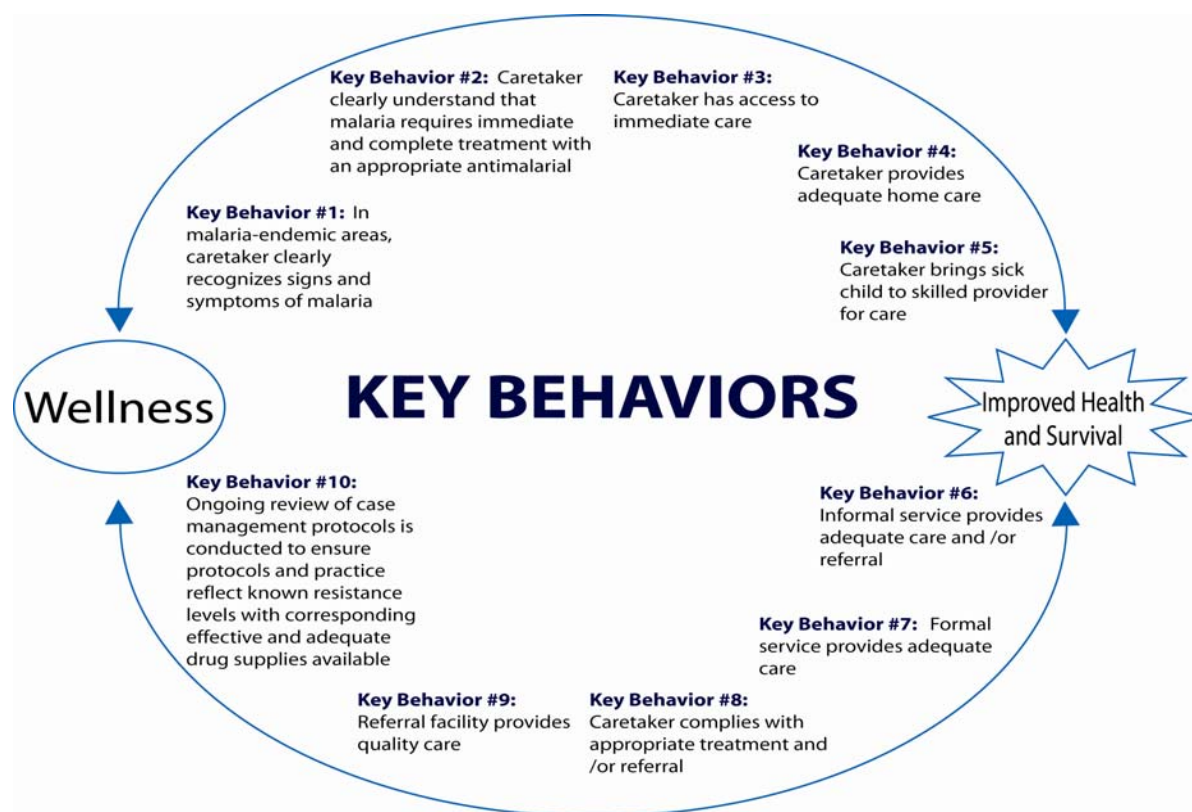
- Decision Pathway for Malaria Prevention Activities
- Decision Pathway for Improving the Supply and Use of Medicines
- Decision Tool for Evaluating Malaria-related Policies
- CD-Rom with multiple assessment and survey tools to facilitate malaria program design and monitoring



The Surviving Malaria Decision Guide tool is meant to complement existing tools that address childhood illness at the household, community and health facility levels. The tool recognizes the value of the Integrated Management of Childhood Illness protocol and the need to address the “sick child” in a holistic manner as many suffer from several illnesses simultaneously and have underlying malnutrition. Given that malaria is the number one killer of young children in Africa, this tool seeks to strengthen the management of malaria at the household, community and health facility level in the context of Community and Facility IMCI initiatives where possible.

## KEY BEHAVIORS for Appropriate Case Management of Malaria in Infants and Young Children

Below are ten Key Behaviors addressed by this tool that are recognized as being critical for the appropriate case management of malaria in infants and young children. The behaviors begin with actions needed from the time a child becomes sick at home to the return of the child’s health. Each behavior is addressed separately in a Guide that provides guidance for collecting assessment information and programming activities in relation to that specific behavior.



## Key Behavior #1: In malaria-endemic areas, caregiver clearly recognizes signs and symptoms of malaria

### Why is this important?

- Malaria can progress quickly, leading to the death of children within 48 hours after the first symptoms appear. Early and prompt recognition of malaria is critical for preventing child deaths.
- In many settings, fever is not readily associated with malaria until the fever becomes severe.
- Many communities believe that convulsions are related to spiritual factors and not associated with malaria and therefore require attention from a traditional healer.
- Often, there are different local terms used for malaria when it is accompanied with convulsions.

### Questions to Consider

- Is there data available that indicates caregivers recognize **signs** and **symptoms** of malaria in infants and young children?
- What information is available at the community and household level regarding malaria among infants and young children?
- What is the level of understanding regarding malaria in infants and young children among caregivers'?
- Where are caregivers and decision makers currently receiving their information regarding malaria in young children? Is this information accurate?
- Are malaria symptoms recognized at the time of the illness - "timely recognition"?
- Are symptoms seen as abnormal?
- Is there an understanding that symptoms of fever with convulsions are more likely to lead to death?
- Are there community norms that associate convulsions with non-malaria problems?
- Is there an understanding that "western medicine" is needed and effective to treat severe malaria?

### Early Warning Signs:

#### "Child is about to become ill"

- ✓ Irritability, tiredness, lack of appetite

#### Illness Symptoms:

- ✓ Fever
- ✓ Chills
- ✓ Sweating
- ✓ Headache
- ✓ Muscular/joint pain
- ✓ Vomiting
- ✓ Diarrhea
- ✓ Anemia
- ✓ Twitching
- ✓ Convulsions



## Key Behavior #1: In malaria-endemic areas, caregiver clearly recognizes signs and symptoms of malaria

### Tools Available to help answer the Questions

- See “A Guide to Research on Care-seeking for Childhood Malaria” (modules 2, 3, 4.1) by Carol Baume (go to: [www.basics.org/publications/integrated.html](http://www.basics.org/publications/integrated.html) or to: [http://www.basics.org/publications/pubs/Malaria/malaria\\_careseeking\\_guide.pdf](http://www.basics.org/publications/pubs/Malaria/malaria_careseeking_guide.pdf))
- Focus groups with caregivers, household decision makers (“How can you tell if a child has malaria?”)
- Key informants interviews with local health facility workers, CHWs/community agents, traditional healers
- Verbal/Social Autopsy (go to: [www.basics.org/publications/abs/abs\\_guinea\\_mortality.html](http://www.basics.org/publications/abs/abs_guinea_mortality.html))
- KPC 2000+ survey (malaria and sick child modules) (go to: <http://www.childsurvival.com/kpc2000/kpc2000.cfm>)
- Other data collection methods:
- MARA website provides maps that show risk of malaria in Africa [www.mara.org.za](http://www.mara.org.za)
- For seasonal information on malaria transmission consult the National Malaria Control Program

### Decisions Needed/ Program Considerations

- Determine the role the NGO might play to influence early illness recognition for malaria among infants and young children.
  - Is a SBC strategy needed to increase caregivers/ community knowledge of signs / symptoms of malaria in young children?
- If yes:**
- Identify who is currently promoting early recognition of malaria in young children, the messages and strategies they are using and potential areas for collaboration.
  - Identify existing structures in place that might be used to promote and support behavior change activities.
  - Determine how opinion leaders / decision makers/ caregivers can best be targeted and involved with SBC strategies/ interventions.
  - Identify the local perceptions, terminology and current knowledge for various symptoms and conditions related to malaria and evaluate how these perceptions and terms should impact message development and dissemination.

## **Key Behavior #2: Caregiver clearly understand that malaria requires immediate and complete treatment with an appropriate antimalarial**

### **Why is this important?**

- Children need to receive early and complete treatment with antimalarials, preferably within 24 hrs of the onset of symptoms, in order to prevent severe malaria and or death.
- In malaria endemic areas, all cases of fever in children under five should be treated as malaria.
- Many caregivers and even some providers treat fever with antipyretics only.
- Children treated symptomatically for fever only are at risk of dying from malaria.
- Most malaria episodes are treated outside the formal health sector with inadequate instructions provided on how much medicine is needed. This leads to children receiving incorrect or insufficient amounts that contribute to increased drug resistance as well as poor outcomes for the sick child.

### **Questions to Consider**

- Where do caregivers get their information regarding treatment of febrile illness in children? Are symptoms believed to be treatable?
- Do caregivers distinguish between antimalarials, antipyretics and antibiotics?
- Do caregivers understand the need to treat malaria, and not only the fever?
- Do caregivers understand that one antimalarial may not work and another drug may be necessary?
- Do caregivers understand how and the importance of providing complete treatment of antimalarials to the sick child?

## **Key Behavior #2: Caregiver clearly understand that malaria requires immediate and complete treatment with an appropriate antimalarial**

### **Tools Available to help answer the Questions**

- “A Guide to Research on Care-seeking for Childhood Malaria” by Carol Baume, Module 2 (go to: [www.basics.org/publications/integrated.html](http://www.basics.org/publications/integrated.html) or to: [http://www.basics.org/publications/pubs/Malaria/malaria\\_careseeking\\_guide.pdf](http://www.basics.org/publications/pubs/Malaria/malaria_careseeking_guide.pdf))
- Focus groups with caregivers and household decision makers
- Verbal/Social Autopsy (go to: [www.basics.org/publications/abs/abs\\_guinea\\_mortality.html](http://www.basics.org/publications/abs/abs_guinea_mortality.html))
- Key informant interviews with: traditional practitioners, local health facility or community health workers/agents.

### **Decisions Needed/ Program Considerations**

- Is a SBC strategy needed to increase caregivers / community knowledge of seriousness of malaria and need for prompt and complete treatment of malaria in young children?

#### **If yes:**

- Identify existing community structures providing care and information to caregivers and decision makers that would benefit from additional training and support for behavior change promotion and accurate message sharing regarding malaria treatment in young children.
- As appropriate, train and support CHWs, mothers groups, Health Facility workers, others to share messages regarding signs and symptoms of malaria and need for immediate and complete care.
- Consider developing/ adapting job aids such as a mother’s home card for recognition of signs of illness, home care actions and care seeking responses.



### Key Behavior #3: Caregiver has access to immediate care

#### Why is this important?

- The problem (malaria) is recognized, but prompt action does not follow due to one or several barriers related to access.
- In many contexts, the caregiver must require permission from a spouse or other decision maker to go to the health facility especially if resources are needed and/or if it requires a significant amount of time away from home.
- MOH policy across the malaria endemic countries varies greatly in relation to who can provide first line treatment for malaria and /or ARI. This can often inhibit the availability of first line antimalarials at the community level such as through CHWs, other community agents, local shops or drug vendors.
- Distance to a facility or provider that is trained to diagnosis and treat malaria in infants and young children may be greater than one hour travel time with the perceived opportunity costs being considerable.
- Many facilities have limited hours of operations when health care workers are available and have no contingency plans for handling emergencies outside of clinic hours (see Formal Services below).
- The perceived quality of care of a health facility will influence the utilization of services by the community. Perceived quality of care can be influenced by availability of medicines, attitude of staff, waiting time, among other factors. (See Formal Services below)

#### Questions to Consider

- What are the barriers to quick access to care?
- What are the barriers to care seeking faced by caregivers? (Social, economic, geographic, cultural, knowledge, etc.)
- Where do caregivers currently seek care (informal and formal sources) for the treatment of fever and other signs of malaria for their infants and young children?
- What are the barriers to accessing skilled providers?
- Are skilled providers available locally within one hour travel time?
- Who makes the household decisions regarding care seeking for infants and young children? How can these groups be most effectively targeted with SBC strategies and interventions?
- Is there an existing community-based intervention that addresses issue of access?
- Are there other successful community based programs in the area/ region that can assist or provide models for addressing care seeking barriers?
- What is the MOH policy regarding by who and where first line treatment of antimalarials can be provided?

#### Access to care includes:

- ✓ Caregiver has ability (knowledge) to provide care
- ✓ Caregiver has ability (permission - resources) to seek care

#### Facility is:

- ✓ Open
- ✓ Community based
- ✓ Agent/drug vendor with supplies and skills is present in the community
- ✓ **Caregiver/ Decision maker has confidence in the quality of care (consider attitudes of staff, waiting time, availability of medicines, etc.)**



## Key Behavior #3: Caregiver has access to immediate care

### Tools Available to help answer the Questions

- “A Guide to Research on Care-seeking for Childhood Malaria” by Carol Baume, Module 2, 4.1, 4.4 (go to: [www.basics.org/publications/integrated.html](http://www.basics.org/publications/integrated.html) or to: [http://www.basics.org/publications/pubs/Malaria/malaria\\_careseeking\\_guide.pdf](http://www.basics.org/publications/pubs/Malaria/malaria_careseeking_guide.pdf))
- KPC 2000+ survey data: malaria and sick child modules (go to: <http://www.childsurvival.com/kpc2000/kpc2000.cfm>)
- PRA/PLA on barriers as well as most utilized sources of care (go to: [http://www.basics.org/publications/abs/abs\\_participatory.html](http://www.basics.org/publications/abs/abs_participatory.html) or [www.catholicrelief.org/what/overseas/RRA\\_manual.pdf](http://www.catholicrelief.org/what/overseas/RRA_manual.pdf) for references on how to do PRA/PLA)
- Focus groups with caregivers, household decision makers.
- Key informant interviews with informal and formal providers.

### Other data collection methods

- Health facility visits – evaluate distance, travel time, resources available, hours of operation, contingency plans for off hours
- Visits to local shops, pharmacies and other sites where medicines are sold – evaluate cost, quality, hours of operation (packaging, expiration dates) and instructions
- Dialogue with National Malaria Control Program and Roll Back Malaria (RBM) partners regarding options for improved access to care – particularly community structures to support case management of malaria in young children.

### Decisions Needed/ Program Considerations

- Can barriers to access be addressed through existing community structures or do additional avenues for addressing access need to be created and supported?
- Determine the role the NGO can play to strengthen and support access to immediate care for the treatment of malaria in infants and young children. As appropriate, consider training, support, and supervision of community based agents who can provide case management of malaria in young children.
- Consider advocacy with MOH for policy change on community agents’ role for case management of malaria and ARI. Collaborate to conduct pilot program for community agents.
- Evaluate if health facilities or health workers are accessible 24/7 with contingency plans in place for off hours. If not, collaborate with community, providers, and health system to develop and support appropriate plan of action.
- If resource barriers (money, transport, etc) for careseeking are significant, design and support a plan with community and health system to address these barriers – Consider: credit at the household, community and or the facility; insurance schemes, free care for the disadvantaged; drug revolving funds; transportation assistance; etc.
- If access to basic antimalarials is of key concern, consider facilitating the “accreditation of drug dispensing outlets” (for program models, see MSH project information at <http://www.msh.org/projects/seam/3.1.4.htm>)
- Consider the feasibility and appropriateness of Franchising Shops for the supply of essential medicines (including antimalarials) and other health supplies (for program models, see MSH project information at <http://www.msh.org/projects/seam/3.1.3.htm> or <http://www.shfoundation.org/about/index.html>)
- Collaborate / advocate with MOH regarding policy and practice for improving the provision of first line antimalarials for communities with poor access to care



## Key Behavior #4: Caregiver provides adequate home care

### Why is this important?

- Prompt and complete treatment (preferably within 24 hours of onset of symptoms) with an effective antimalarial and lowering body temperature can prevent complications and save lives.
- Complete treatment for malaria may include taking an antimalarial for several days (ex. Chloroquine is taken x 3 days). Many caregivers only give the first dose and save the remainder for the next episode contributing to drug resistance and compromising the recovery, health and survival of the sick child.
- Not all antimalarials have anti-pyretic properties and will not therefore initially lower the fever. It may be necessary to provide an antipyretic along with the antimalarial especially in the case of high fever.

### Questions to Consider

- Do caregivers know how to correctly administer first line treatment for malaria?
- What is the MOH policy regarding who can sell, distribute, and administer first line treatment medicines for malaria?
- Are appropriate drugs in the appropriate quantity/ package available at the community level? Are they affordable? Are they of adequate quality?
- What are caregivers' knowledge and practice regarding other key family home care practices for the sick child, including continued fluids and feeding, actions to reduce fever, monitoring for danger signs, treatment of anemia, etc?

### Adequate home care includes:

- ✓ Timely administration of medicine correct
- ✓ Complete dose of proper antimalarial
- ✓ If fever, provide antipyretic and / or tepid sponging

## Key Behavior #4: Caregiver provides adequate home care

### Tools Available to help answer the Questions

- A Guide to Research on Care-seeking for Childhood Malaria” by Carol Baume, Module 2 (go to: [www.basics.org/publications/integrated.html](http://www.basics.org/publications/integrated.html) or to: [http://www.basics.org/publications/pubs/Malaria/malaria\\_careseeking\\_guide.pdf](http://www.basics.org/publications/pubs/Malaria/malaria_careseeking_guide.pdf))
- Community – Drug Management for Malaria Assessment Tool (Comm-DMM, available through MSH [www.msh.org](http://www.msh.org))
- Community – Drug Management for Childhood Illness (Comm-DMCI, available through MSH [www.msh.org](http://www.msh.org))
- Focus groups with caregivers
- Verbal/Social Autopsy (go to: [www.basics.org/publications/abs/abs\\_guinea\\_mortality.html](http://www.basics.org/publications/abs/abs_guinea_mortality.html))
- Key Informant interviews with shop keepers, CHWs, health workers, traditional healers, etc.
- Other data collection methods:
- Dialogue with National Malaria Control Program and Roll Back Malaria partners in country
- Visits to local outlets/ providers where antimalarials are available. (Check knowledge of use, price, quality, etc.)

### Decisions Needed/ Program Considerations

- Is a SBC strategy needed to assure or improve prompt and complete treatment of malaria in young children?
- What additional training and support do caregivers need for the correct treatment for malaria in young children (uncomplicated fever)? What mechanisms (existing if possible) might be used to provide this training and support?
- What is the role the NGO can play to make first line antimalarials more accessible at the household / community level?

#### Consider:

- Advocacy with MOH for policy change regarding distribution of first line antimalarials;
- Collaboration with drug suppliers for improved quality, packaging and reach of first line antimalarials; for example: pre-package of drug in complete treatment course; use of re-sealable plastic bags; Instructions on how to take complete treatment.
- Support and training to drug vendors and community agents for providing complete dose, instruction and support to caregivers for adequate home care, etc.
- Consider facilitating the “accreditation of drug dispensing outlets”.
- Consider the feasibility and appropriateness of “franchising shops” for the supply of essential medicines (including antimalarials) and other health supplies



✓ **Note:**

**This may be the first care seeking behavior and/or occur after home based treatment has failed.**

## **Key Behavior #5: Caregiver brings sick child to skilled provider for care**

### **Why is this important?**

- There may be signs such as persistent fever (treatment failure), difficult/rapid breathing (pneumonia/malaria overlap), or twitching/ convulsions (complicated malaria) indicating that immediate assistance from a skilled provider is required.
- It is important that a caregiver knows their limitations and recognizes signs of severe illness in young children that indicate immediate assistance is needed from a qualified provider.
- Many sources of care utilized by the community for treatment of febrile illness in young children may not include administration of an effective antimalarial. It is therefore very important that care from a skilled provider is sought.
- Research shows that caregivers often go to traditional sources of care first and then on to formal sources, increasing the delay time before an antimalarial is taken.
- In some countries, MOH policy permits first line antimalarials to be provided only through skilled providers. In this context, until policy is changed, it is imperative that caregivers immediately seek treatment first from a skilled provider in order to obtain an effective antimalarial.

### **Questions to Consider**

- Do caregivers of young children recognize danger signs? (difficult or rapid breathing, high or persistent fever, stupor, lethargy, loss of consciousness, vomiting all intake, twitching or convulsions.)
- Who do caregivers/ decision makers perceive is best trained to provide treatment for febrile illness, complicated malaria (twitching/ convulsions), and other signs of severe illness in young children?
- What are the current careseeking practices of households? Where (when and how) do they seek treatment first? second? third?
- Do caregivers know how to identify and respond to a treatment failure for malaria in young children?
- How, when and by whom are household decisions to seek outside care made?

## Key Behavior #5: Caregiver brings sick child to skilled provider for care

### Tools Available to help answer the Questions

- “A Guide to Research on Care-seeking for Childhood Malaria” by Carol Baume, Module 2, 4.1, 4.4 (go to: [www.basics.org/publications/integrated.html](http://www.basics.org/publications/integrated.html) or to: [http://www.basics.org/publications/pubs/Malaria/malaria\\_careseeking\\_guide.pdf](http://www.basics.org/publications/pubs/Malaria/malaria_careseeking_guide.pdf))
- Focus groups with caregivers, and household decision makers
- Verbal/ Social Autopsy (go to: [www.basics.org/publications/abs/abs\\_guinea\\_mortality.html](http://www.basics.org/publications/abs/abs_guinea_mortality.html))
- Key informant interviews with traditional healers, community agents, and health workers
- KPC 2000+ Survey, Malaria and Sick Child modules (go to: <http://www.childsurvival.com/kpc2000/kpc2000.cfm>)
- PRA/PLA exercise to rank first and second line sources of treatment according to signs and symptoms presenting in the sick child. (go to: [http://www.basics.org/publications/abs/abs\\_participatory.html](http://www.basics.org/publications/abs/abs_participatory.html) or [www.catholicrelief.org/what/overseas/RRA\\_manual.pdf](http://www.catholicrelief.org/what/overseas/RRA_manual.pdf) for references on how to do PRA/PLA)
- DHS survey results, Section 4B: Immunization, Health, Nutrition (go to: [www.measuredhs.com/](http://www.measuredhs.com/))

### Decisions Needed/ Program Considerations

- Is a SBC strategy needed to improve prompt treatment seeking for malaria in young children from a skilled provider?
- How can household and community decision makers and caregivers of young children best be targeted by SBC activities aimed at increasing timely careseeking from a skilled provider?
- How can care sources identified as most utilized by the community for febrile illness and complicated malaria benefit from behavior change activities targeting prompt treatment from a skilled provider?
- How can the NGO facilitate the provision of additional sources of skilled / trained providers for the case management of malaria in areas where poor access or no access exists?



## Key Behavior #6: Informal service provides adequate care and /or referral

### Why is this important?

- In many development contexts, up to three-fourths of households first seek care from an informal source, making them an important source of care, information and a key referral point.
- MOH policy across the malaria endemic countries varies greatly in relation to who can provide first line treatment for malaria and /or ARI, resulting in limitations of care options and poor access to care for communities.
- A child may present with malaria/pneumonia overlap. A substantial proportion of children with fever will also meet a pneumonia case definition (cough or difficulty breathing, and fast breathing or chest in-drawing), and almost all children meeting a pneumonia case definition also have fever or a history of fever. Treatment of malaria alone may result in death from pneumonia, thus all malaria protocols for first level health workers in communities or at health facilities should include case management for pneumonia. (USAID/GH/Tech. Ref. Materials, Malaria 2003 go to: [http://www.childsurvival.com/documents/trms/update\\_trms.cfm](http://www.childsurvival.com/documents/trms/update_trms.cfm))
- Community agents in many settings only have skills and access to drugs to treat uncomplicated malaria and no provision to address ARI. It is therefore important that community agents are also able to facilitate referral when signs of pneumonia, treatment failure or complicated malaria appear.
- The appropriate treatment for complicated malaria is different than with uncomplicated cases.
- The quality of care provided through community agents is greatly impacted by supervision and support structures in place.<sup>3</sup>
- Given the distance to formal health facilities (private or public), informal sources of care based in the community and easily “accessible” to households may be the only viable option for ensuring the sick child receives prompt treatment for the malaria episode.

### Questions to Consider

- Do caregivers of young children recognize danger signs? (difficult or rapid breathing, high or persistent fever, stupor, lethargy, loss of consciousness, vomiting all intake, twitching or convulsions.)
- Who do caregivers/ decision makers perceive is best trained to provide treatment for febrile illness, complicated malaria (twitching/ convulsions), and other signs of severe illness in young children?
- What are the current careseeking practices of households? Where (when and how) do they seek treatment first? second? third?
- Do caregivers know how to identify and respond to a treatment failure for malaria in young children?
- How, when and by whom are household decisions to seek outside care made?

### Adequate care includes:

- ✓ Informal care providers at the community level are competent in providing care for simple malaria with adequate dosage of first line drugs
- ✓ Effective counseling for home care
- ✓ Recognition of danger signs and facilitation of referral for signs that indicate immediate care from a trained practitioner is required.

<sup>3</sup> USAID/GH/HIDN Technical Reference Materials. Malaria. August 2003



## Key Behavior #6: Informal service provides adequate care and /or referral

### Questions to Consider

- What is the MOH case management of malaria in young children policy for community agents and existing informal sources of care?
- What is the MOH policy for case management of ARI for community agents and existing informal sources?
- What (when and by whom) training and followup have informal providers received? What type of supervision and support are informal providers receiving?
- Are there existing training materials for equipping informal providers/community agents in the provision of first line treatment for malaria and ARI? (MOH, International or Local Partners)
- Do informal providers ask appropriate questions and check for danger signs and other signs such as rapid breathing and persistent fever?
- Do informal providers correctly recognize/ diagnosis and treat simple malaria including counseling for followup home care actions?
- Do informal providers have adequate access to quality first line antimalarials?
- Do informal providers give clear home care instructions? (Completion of treatment course, fluid and feeding recommendations, monitoring for danger signs that indicate need for immediate care assistance, use of ITNs, recognition, prevention and treatment of anemia, etc.)
- Do informal providers understand that convulsions and/or signs of possible severe malaria require immediate care from a trained practitioner?
- Do all informal providers understand that “western medicine” antimalarials are needed?
- Do informal providers “facilitate referral”?
- What are the incentives/ disincentives to referring clients to another provider?
- What are the current information, supply and support sources for these informal community providers?
- What is the current utilization and perceived quality of care held by households regarding informal providers’ treatment of febrile illness in young children?
- Do informal providers give caregivers information or provide access to ITNs for the prevention of future malaria episodes?

## Key Behavior #6: Informal service provides adequate care and /or referral

### Tools Available to help answer the Questions

- “A Guide to Research on Care-seeking” by Carol Baume, Module 5 includes key informant interviews and observation of client visits with informal providers. (go to: [www.basics.org/publications/integrated.html](http://www.basics.org/publications/integrated.html) or to: [www.basics.org/publications/pubs/Malaria/malaria\\_careseeking\\_guide.pdf](http://www.basics.org/publications/pubs/Malaria/malaria_careseeking_guide.pdf) )
- Verbal/Social Autopsy (go to: [www.basics.org/publications/abs/abs\\_guinea\\_mortality.html](http://www.basics.org/publications/abs/abs_guinea_mortality.html))
- Focus groups with caregivers and household decision makers regarding use and quality of informal sources of care for the treatment of febrile illness in children.
- Key informant interviews with health facility workers regarding existing relationship, role, training, supervision, referrals of informal providers in catchment area as well as perceived quality of care.
- Provider association surveys.
- Key informant interviews and focus groups with informal providers regarding their roles, training, support, relationships with households, communities and health facilities for the treatment of febrile illness in young children.
- Community – Drug Management for Malaria Assessment Tool (Comm-DMM, available through MSH [www.msh.org](http://www.msh.org))
- Community – Drug Management for Childhood Illness (Comm-DMCI, available through MSH [www.msh.org](http://www.msh.org))

### Other data collection methods:

- Dialogue and review of MOH policy and practice regarding provision of first line treatment for malaria and support and utilization of community agents for case management of malaria in young children.

### Decisions Needed/ Program Considerations

- Is a SBC strategy needed to improve prompt treatment seeking for malaria in young children from a skilled provider?
- How can household and community decision makers and caregivers of young children best be targeted by SBC activities aimed at increasing timely careseeking from a skilled provider?
- How can care sources identified as most utilized by the community for febrile illness and complicated malaria benefit from behavior change activities targeting prompt treatment from a skilled provider?
- How can the NGO facilitate the provision of additional sources of skilled / trained providers for the case management of malaria in areas where poor access or no access exists?

## Key Behavior #6: Informal service provides adequate care and /or referral

### Decisions Needed/ Program Considerations

- What role can the NGO play to improve and expand the ability of informal providers to provide adequate care and referral for the treatment of malaria in young children?
- With what groups/ organizations should the NGO collaborate their activities?
- Considering the current most utilized source of informal care, MOH policy, and willingness of informal providers to collaborate: identify local informal providers who are most appropriate to work with.
- What are the skills, behaviors, supplies and support informal providers need to provide effective case management?
- What role can the NGO play to strengthen relationships between informal providers, the community and health facility?

### Consider these options:

- Advocacy with the MOH for policy changes that enable informal community providers to provide case management for malaria and ARI. Consider collaborating with MOH to conduct pilot program for community agents to provide case management services.
- Provide training, supervision and support of informal providers for the correct and complete treatment of malaria (uncomplicated fever).
- Provide training and support for the recognition of danger signs, pneumonia/malaria overlap and treatment failure and how to facilitate referral.
- Provide support to ensure availability, affordability and quality of first line antimalarials to trained informal providers.
- Provide job aids to help caregivers understand how to provide complete treatment of antimalarials.
- Provide job aids to assist informal providers to give and caregivers to follow home care instructions.
- Train and support informal providers to give information and provide access to caregivers for ITNs to prevent future malaria episodes.
- Consider facilitating the "accreditation of drug dispensing outlets".
- Consider the feasibility and appropriateness of "franchising shops" for the supply of essential medicines (including antimalarials) and other health supplies (ITNs).
- Consider working with drug suppliers to provide pre-packaged complete treatment course and the use of re-sealable plastic bags.



## Key Behavior #7: Formal service provides adequate care and /or referral

### Why is this important?

- The ability to promptly and appropriately assess, classify and treat malaria in infants and young children and facilitate referral as required can prevent child deaths.
- Favorable outcome of treatment influences the communities' confidence in ability of the care provider.
- Having an adequate drug supply, attitudes and counseling skills of staff, waiting time, hours of operation, and other factors significantly impact the perceived quality of care and subsequent utilization of services.
- Fever may be caused by other illnesses (such as pneumonia) or may be associated with two or more concurring illness in a child. One common occurrence is pneumonia/ malaria overlap making it critical for children to be assessed for rapid/ difficult breathing. If a child presents with cough and fast breathing, treat with cotrimoxazole for 5 days (fast breathing = infant is 2-12 months of age and breathes 50 times/p minute or more; child is between 12 months and 5 yrs of age and breathes 40 times/p minute or more). Cotrimoxazole can address both the pneumonia and malaria.
- The IMCI approach/protocol is ideal as it enables the practitioner to assess for the presentation of simultaneous illness episodes in the child such as malaria and pneumonia, as well as underlying malnutrition, the presence of danger signs, presence of complications including anemia, hypoglycemia, dehydration, and provide adequate home care instructions. (see USAID/GH/Technical Reference Materials, IMCI 2003 go to: [www.childsurvival.com/documents/trms/update\\_trms.cfm](http://www.childsurvival.com/documents/trms/update_trms.cfm) or WHO Handbook IMCI, April 2000 go to: [www.who.int/child-adolescent-health/publications/IMCI/WHO\\_FCH\\_CAH\\_00.12.htm](http://www.who.int/child-adolescent-health/publications/IMCI/WHO_FCH_CAH_00.12.htm))
- Children who present with signs of severe illness need to be promptly recognized, identified and prioritized for immediate treatment (clinical screening/triage). At many health facilities, poor staffing and quality of care inhibit these children from being quickly identified, provided rapid treatment and referred.
- Repeated episodes of malaria can lead to chronic or severe anemia impacting a child's growth and intellectual development and may even result in death. The recognition and management of anemia by health care workers, particularly in areas of high transmission, is critical including the provision of iron supplementation, deworming and counseling for caregivers on nutrition (See USAID/GH/Technical Reference Materials, Nutrition and Micronutrients 2003 go to: [www.childsurvival.com/documents/trms/update\\_trms.cfm](http://www.childsurvival.com/documents/trms/update_trms.cfm)).

### Includes:

- ✓ Providers at the health facility level understand and provide appropriate and complete treatment for simple malaria in young children and know how to treat severe malaria and/or when and where to refer for severe malaria.

## Key Behavior #7: Formal service provides adequate care and /or referral

### Questions to Consider

- Does the formal service provider:
  - ☐ Provide clinical triage and screening for severe malaria
  - ☐ Ask and check for danger signs and takes history
  - ☐ Check for rapid/difficult breathing (assess pneumonia / malaria overlap and treat accordingly)
  - ☐ Take temperature
  - ☐ Ask about treatment(s) taken before visit
  - ☐ Check weight / evaluate nutritional status
  - ☐ Check immunization status
  - ☐ Give correct and full dose of appropriate antimalarial drug
  - ☐ Give clear instructions on how, when and how much drugs to take
  - ☐ Ensure caregiver understands instructions
  - ☐ Counsel caregiver and give advice about providing fluids and appropriate feeding (as well as other key family practices as appropriate)
  - ☐ Address problems of anemia, hypoglycemia, dehydration, and other complications present
  - ☐ Explain when to come back
  - ☐ Make/ facilitate appropriate referral
  - ☐ Provide information and access to ITNs for the prevention of future malaria episodes

## Key Behavior #7: Formal service provides adequate care and /or referral

### Questions to Consider

- What is the current MOH policy /protocol for treatment of malaria in young children? Has IMCI been adapted and integrated into service provision?
- Is IMCI in place with training and supervision provided?
- Does health worker performance comply with international SCM or IMCI standards?
- By whom and how often is the health facility supervised? What happens during a supervision visit?
- Are private formal providers aware of and adhering to National MOH guidelines for Malaria Control?
- Are the appropriate drugs available at the facility for the treatment of malaria in infants and young children? Are they of adequate quality? Is the drug supply reliable?
- What is the community's perceived quality of care offered by formal providers for the treatment of febrile illness in young children?
- Does the referral facility provide quality care?
- Are referral protocols well defined and practical?
- Are there provisions for emergency transportation?
- Are there protocols to stabilize and transport patients?

### Tools Available to help answer the Questions

- "Integrated Health Facility Assessment manual" by Murray and Manoncourt (BASICS) (go to: [www.coregroup.org/tools/monitoring/HFA\\_table.html](http://www.coregroup.org/tools/monitoring/HFA_table.html) or [www.basics.org/publications/pubs/hfa/hfa\\_toc.htm](http://www.basics.org/publications/pubs/hfa/hfa_toc.htm) )
- Facility visits (public and private) with provider and client interviews and observations (use tool above)
- Focus groups with caregivers of young children, clinic users, etc.
- Verbal/Social Autopsy (go to: [www.basics.org/publications/abs/abs\\_guinea\\_mortality.html](http://www.basics.org/publications/abs/abs_guinea_mortality.html))
- A Guide to Research on Care-seeking for Childhood Malaria by Carol Baume, Modules 4.2, 4.3, 4.5 (go to: [www.basics.org/publications/integrated.html](http://www.basics.org/publications/integrated.html) or to: [www.basics.org/publications/pubs/Malaria/malaria\\_careseeking\\_guide.pdf](http://www.basics.org/publications/pubs/Malaria/malaria_careseeking_guide.pdf) )
- Drug Management for Malaria Assessment Tool (DMM – available through MSH [www.msh.org](http://www.msh.org))
- Drug Management for Childhood Illness (DMCI- available through MSH [www.msh.org](http://www.msh.org))



## Key Behavior #7: Formal service provides adequate care and /or referral

### Tools Available to help answer the Questions

#### Other data collection methods:

- Referral facility visits and observations (review of: protocols, case fatality rates, adequacy of drug and equipment supplies)
- Dialogue and review of policy and practice for malaria case management with MOH/ National Malaria Control Program and RBM partners.

### Decisions Needed/ Program Considerations

- What are the skills, behaviors, supplies and support needed by the formal services to provide appropriate case management for malaria in infants and young children including effective counseling, clinical triage and facilitated referral?
- How can the NGO best support the existing system and partner organizations to strengthen the quality of care and expand coverage of services?

#### Consider these Options:

- What role can the NGO play to strengthen relationships between the health facility, community, referral site and community agents? (meetings, visits, sharing of data, joint problem solving, supervision, etc)
- Provide and/or support IMCI training for health facility workers or SCM for malaria and ARI depending on MOH policy.
- Conduct and/or support quality supervision of health services, including data collection and utilization. Consider use of job aids to facilitate adherence to SCM /IMCI protocols and caregiver counseling.
- Strengthen and support adequate and quality drug supply for facilities. Training and supervision for health care workers in drug management.
- Collaborate with partners to strengthen and support health facility referral protocols and operations.
- Collaborate with partners (District Health Management Team) to strengthen drug resistance monitoring and mitigation.
- Provide job aids to help caregivers understand how to provide complete treatment of antimalarial and other home care messages (continued fluids, feeding, treatment of anemia, use of ITNs).
- Strengthen relationship between health facility and community including feedback mechanisms, client satisfaction surveys, etc.
- Train and support referral facilities in the proper management of severe malaria episodes in infants and young children (See key behavior #9).
- Provide awareness and training for private formal providers regarding National MOH Malaria Control Guidelines.
- Train and support formal providers to give information and increase caregiver access to ITNs to prevent future malaria episodes.

## **Key Behavior #8: Caregiver complies with appropriate treatment and /or referral**

### **Why is this important?**

- A caregiver's compliance implies that the caregiver and care provider agree on the diagnosis and treatment (that is the caregiver believes the treatment will be effective).
- An informed caregiver and an improved caregiver – provider relationship will increase treatment compliance, which is linked to clinical outcome and mitigation of drug resistance.
- Caregiver compliance also includes understanding of the treatment recommendations, and ability to obtain and minister the medication along with other home care messages.
- Caregiver compliance includes:
  - ❑ Gives correct and complete dose of antimalarial;
  - ❑ Follows fluid and feeding recommendations;
  - ❑ Watches for signs to return to provider immediately (fever persists – lethargy – convulsions);
  - ❑ Returns to provider/ facility when signs appear;
  - ❑ Obtains and utilizes ITN for infants and young children
- Caregiver acceptance of referral implies that they have the means and support to reach the referral site as well as confidence in the quality of care provided.

## Key Behavior #8: Caregiver complies with appropriate treatment and /or referral

### Questions to Consider

- Does the caregiver agree to:
  - ☐ Give correct and complete dose of antimalarial
  - ☐ Follow feeding recommendations
  - ☐ Watch for signs (fever persists – lethargy – convulsions) to return to provider immediately
  - ☐ Return to clinic when signs appear
  - ☐ Obtain and utilize ITNs for infants and young children
- What is current provider/client culture (related gender and cultural/ class/ language, etc.)?
- What is the level of counseling skills available to care providers? What is the time available for this communication based on patient flow and staffing patterns?
- To what extent are caregivers complying with care – complete dose of antimalarial, monitoring for danger signs, fluid and feeding recommendations, treatment of anemia, etc.?
- What barriers exist to caregiver compliance with treatment recommendations?
- Do caregivers have access to adequate, appropriate, affordable drug supply?
- Do caregivers accept referral when recommended? What barriers exist?
- Do caregivers have access to ITNs?
- Do caregivers utilize ITNs for their infants and young children?

## Key Behavior #8: Caregiver complies with appropriate treatment and /or referral

### Tools Available to help answer the Questions

- “A Guide to Research on Care-seeking for Childhood Malaria” by Carol Baume, Modules 2, 4.6, 6 (go to: [www.basics.org/publications/integrated.html](http://www.basics.org/publications/integrated.html) or to: [www.basics.org/publications/pubs/Malaria/malaria\\_careseeking\\_guide.pdf](http://www.basics.org/publications/pubs/Malaria/malaria_careseeking_guide.pdf))
- KPC 2000+ Survey, Malaria and Sick Child modules (go to: [www.childsurvival.com/kpc2000/kpc2000.cfm](http://www.childsurvival.com/kpc2000/kpc2000.cfm) )
- Integrated Health Facility Assessment (BASICS): Exit Interview-Sick Child; Observation Checklist-Sick Child. (go to: [www.coregroup.org/tools/monitoring/HFA\\_table.html](http://www.coregroup.org/tools/monitoring/HFA_table.html) or [www.basics.org/publications/pubs/hfa/hfa\\_toc.htm](http://www.basics.org/publications/pubs/hfa/hfa_toc.htm) )
- Key informant interviews with health care workers
- Focus groups with caregivers and decision makers
- Verbal/Social Autopsy (go to: [www.basics.org/publications/abs/abs\\_guinea\\_mortality.html](http://www.basics.org/publications/abs/abs_guinea_mortality.html))
- Focus groups with informal providers (ex. traditional healers) who manage severe febrile illness in the community (dialogue about treatment regimes, referral opportunities, perceived effectiveness of western medicine in relation to various illness/symptoms, etc.)

### Decisions Needed/ Program Considerations

- What role can the NGO play in improving caregiver’s compliance with appropriate treatment and or acceptance of referral?
- How can the NGO provide support to assist caregivers to address barriers to compliance with treatment recommendations and or acceptance of referral?
- With what groups/ organizations should the NGO collaborate to carry out these activities?
- Is health care provider training and support for improved interpersonal communication skills needed?
- Do informal and formal providers require additional training and support for counseling skills and “facilitated referral”? Can job aids that facilitate caregiver counseling be useful?
- Is an SBC strategy needed to target caregivers and decision makers for improved treatment compliance including: completion of treatment, monitoring for signs of severe illness that indicate need for immediate follow up, improved feeding practices during and following illness, and other home care behaviors?
- What role can the NGO play to empower caregivers to exercise their right to interact with providers?

## **Key Behavior #8: Caregiver complies with appropriate treatment and /or referral**

### **Tools Available to help answer the Questions**

#### **Consider:**

- Training and support of CHWs /community agents to conduct home visits for follow up care of sick children.
- Support existing (if present) or initiate ongoing community and health facility problem solving and action planning to address barriers to care and referral compliance (cost of consults and/ or medicines: perceived quality of care; transport; permission, etc)
- Provide logistics support for adequate and affordable antimalarial drug supply at various levels of care.
- Create job aids to help caregivers understand how to provide complete treatment of antimalarials, and to follow home care instructions (mother's home reminder card).
- Collaborate with drug suppliers to provide pre-packaged complete treatment course and the use of re-sealable plastic bags.
- Consider interventions to improve caregiver's access to and use of ITNs for infants and young children for the prevention of future malaria episodes.

## Key Behavior #9: Referral facility provides quality care

### Why is this important?

- *Plasmodium falciparum* causes the most serious form of malaria, and is common in the tropics. In areas of high transmission, the risk of severe falciparum malaria developing is greatest among young children.
- If children with uncomplicated malaria are not given prompt and complete treatment with an effective antimalarial drug, their condition can deteriorate rapidly (within 24 hours) and develop severe malaria.
- Children with clinical features of severe malaria (convulsions, prostration, coma, respiratory distress, haemoglobinuria, abnormal bleeding tendency), must be rapidly identified, immediately treated and referred to a health facility where maximal clinical care is possible.
- Many referral facilities are hard to reach and lack transport to assist with referrals from other facilities or communities, further delaying the time it takes for a child to reach the center. In some cases, referral facilities may be non-existent, indicating a need for the local health facility to have basic capacity to manage complicated/ severe malaria cases.
- The training, skills, and supervision of staff, and the availability of essential drugs and supplies impact the quality of care at a referral facility. For Recommended Care Protocol for Severe Malaria see WHO Reference (revised 2000) Management of Severe Malaria: A Practical Handbook, can download from Internet at [www.mosquito.who.int/docs/hbsm\\_toc.htm](http://www.mosquito.who.int/docs/hbsm_toc.htm)
- Rapid treatment of children with severe malaria or anemia saves lives. Immediate treatment priorities include antimalarial therapy (quinine or artesunate), treatment of hypoglycemia and restoration of normal circulating volume. Mortality of children with severe anemia is high, indicating the need for rapid transfusion of blood.\* Concurrent bacteraemia is also often present in children with severe anemia indicating the need for parental antibiotics (See guidelines above referenced above as well as USAID/GH/Child Survival Technical Reference Materials, Malaria, Annex 3, August 2003 at [www.childsurvival.com/documents/trms/update\\_trms.cfm](http://www.childsurvival.com/documents/trms/update_trms.cfm)).

\*The need for a blood transfusion in the case of severe anemia may expose the child to the risk of HIV and other blood –borne infections as transfusion screening in many health sites remains alarmingly weak.



## Key Behavior #9: Referral facility provides quality care

### Questions to Consider

- What protocols do referral health facility providers utilize to manage children with severe malaria, cerebral malaria, severe anemia and related complications? (Consider both public and private facilities)
- Do referral facility providers adequately assess and treat children with severe illness including severe malaria, cerebral malaria, and severe anemia and other related complications according to accepted international protocols? (Consider both public and private facilities)
- What is the current MOH policy and protocol for the management of severe illness including severe malaria, cerebral malaria and severe anemia in young children?
- What are the staffing patterns, utilization rates and case fatality rates for the management of severe malaria and anemia in young children at the referral facility? (Consider both public and private facilities)
- What organizations / partners are currently supporting the operation of referral facilities?
- What training, supervision and support do referral facilities currently receive? (Consider both public and private facilities)
- Do referral facilities have adequate supplies of drugs, equipment and other essential medical items to manage severe malaria and anemia in young children?
- What is the relationship of the referral facility with the community, health facilities and community agents in their catchment area? Is there transport available? Is there a feedback loop for patient information and follow-up? (Consider both public and private facilities)
- What is the community's perceived quality of care for the treatment of severe malaria and anemia in young children at referral facilities?
- What is the local health facility, community agents/ informal providers' perception of the quality of care for the treatment of severe malaria and anemia in young children at referral facilities?
- Is blood properly screened for HIV and other blood borne infections at health sites where blood transfusions are being made available? (Consider both public and private facilities)
- What barriers do caregivers encounter in the utilization of referral facility services?

## Key Behavior #9: Referral facility provides quality care

### Tools Available to help answer the Questions

- Verbal and Social Autopsy (go to: [www.basics.org/publications/abs/abs\\_guinea\\_mortality.html](http://www.basics.org/publications/abs/abs_guinea_mortality.html))
- Key informant interviews with health workers at referral facility sites (public and private)
- Referral facility visits and observations (review of: protocols, case fatality rates, adequacy of drug and equipment supplies)
- Key informant interviews with health facility workers, community agents/ informal providers
- Focus groups with caregivers of infants and young children
- Other data collection methods:
- Dialogue with MOH/National Malaria Control Program and Roll Back Malaria Partners

### Decisions Needed/ Program Considerations

- What role can the NGO play to increase access to and quality of case management at the household and community level for prompt recognition, early and complete treatment of malaria contributing to the reduction of severe disease episodes?
- What skills, behaviors, supplies and support are needed by referral facilities to effectively manage cases of complicated / severe malaria and anemia in infants and young children?
- Given the presence, resources and comparative strengths of partners, what role can the NGO play to provide training, support and supervision to improve quality of care at referral facilities for the management of complicated/severe malaria and anemia?
- What role can the NGO play to strengthen relationships between facilities, communities, informal providers and their related referral facilities?
- What role can the NGO play to ensure blood transfusions being provided to treat severe anemia are properly screened and safe for administration?



## **Key Behavior #10: Ongoing review of case management protocols is conducted to ensure protocols and practice reflect known resistance levels with corresponding effective and adequate drug supplies available**

### **Why is this important?**

- Failure to treat with effective antimalarial drugs will lead to increased morbidity and mortality.
- Chloroquine resistance is widespread in Africa, particularly southern and eastern Africa, with SP (Sulfadoxine-pyrimethamine) taking its place as the first line drug for malaria treatment in many sites. However, resistance to SP is also on the rise with artemisinin-based combination therapies being introduced (These alternative drug choices are more costly).
- If the resistance level to the first-line antimalarial is rising, then emphasis on monitoring clinical outcome and appropriate referral is important.
- Client confidence is at stake when medicines provided are not effective.
- Failure to effectively clear parasites will lead to rising incidence of resistant organisms.
- When the first line drug is changed, client education is critical as medicines have different dosages, side effects, costs and timing to cure.
- Many health units experience drug shortages during the peak transmission season, which in many places coincides with the rainy season - further challenging logistical support.

### **Questions to Consider**

- "What is the MOH policy regarding first and second line drug treatments for malaria and where can these drugs be made available?"
- What is the health facility's (public and private) understanding and practice of the national malaria case management protocol?
- What are the resistance patterns to the existing recommended malaria treatment regimen? What studies have been completed or are ongoing to test/monitor antimalaria drug resistance?
- What are the effective antimalaria drugs? Is there a need for multi-drug therapy?
- Are first and second line medicines available in adequate supply and affordable?
- Who are the existing pharmaceutical/ drug suppliers (regionally, nationally, locally)?
- What systems are in place to monitor the quality of antimalarials (composition, shelf life, packaging, etc.) through both the private and public system?
- What public and private systems/structures are in place where households can promptly access antimalarial drugs?

## **Key Behavior #10: Ongoing review of case management protocols is conducted to ensure protocols and practice reflect known resistance levels with corresponding effective and adequate drug supplies available**

### **Tools Available to help answer the Questions**

- Focus groups with caregivers and decision makers
- Key informant interviews with health providers (informal and formal)
- Focus groups/ interviews/ observations with drug vendors, local shops, other outlets where antimalarials are made available.
- Integrated Health Facility Assessment (BASICS): Health Worker Interview and Equipment and Supplies Checklist. (go to: [www.coregroup.org/tools/monitoring/HFA\\_table.html](http://www.coregroup.org/tools/monitoring/HFA_table.html) or [www.basics.org/publications/pubs/hfa/hfa\\_toc.htm](http://www.basics.org/publications/pubs/hfa/hfa_toc.htm) )
- Community – Drug Management for Malaria Assessment Tool (Comm-DMM, available through MSH [www.msh.org](http://www.msh.org))
- Community – Drug Management for Childhood Illness (Comm-DMCI, available through MSH [www.msh.org](http://www.msh.org))

### **Other data collection methods:**

- Dialogue with National Malaria Control Program and RBM partners – review of data and studies and protocols
- Local health facility data
- Surveillance system data

## Key Behavior #10: Ongoing review of case management protocols is conducted to ensure protocols and practice reflect known resistance levels with corresponding effective and adequate drug supplies available

### Decisions Needed/ Program Considerations

- Do patterns of drug resistance indicate a need for advocacy on treatment policy issues?
- Do restrictions on access and affordability of antimalarial medicines warrant advocacy with the public and private sector?
- Consider collaborating with the MOH to pilot test new initiatives and models that can provide data/ experiences to support needed policy changes.
- Consider participation in surveillance data collection for patterns of antimalarial drug resistance, compliance with treatment, quality, adequacy and availability of antimalarials..
- What role can the NGO play to update and /or disseminate malaria case management treatment protocols down to the level of the health facility? (consider both public and private facilities)
- How can the NGO facilitate adequate availability of effective antimalarial drug supply in accordance with MOH policy and approval?
- How can the NGO collaborate with the private sector to ensure effective, quality and affordable antimalarial drug supply? Consider advocacy and testing for pre-packaged dosages; distribution systems that enable restocking of CHW/malaria agents supplies; networks with local shops that offer antimalarials at an affordable price.
- How can the NGO collaborate with the community and local health system to strengthen and support an effective drug distribution system that enables households to gain immediate access to antimalarials at an affordable price? (Consider community drug-revolving funds, other community financing schemes).
- Consider facilitating the “accreditation of drug dispensing outlets”.
- Consider the feasibility and appropriateness of Franchising Shops for the supply of essential medicines (including antimalarials) and other health supplies.
- Consider training and support for health facilities (public and private) in National Malaria Control Guidelines or IMCI.
- Consider training and supervision for health care workers in drug management.
- Consider training and support for health care workers in drug resistance monitoring and mitigation.
- Surveillance system data

